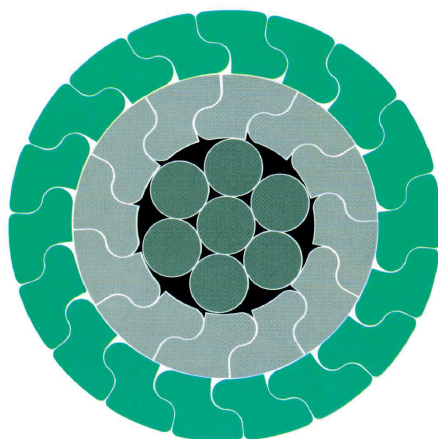




# BARE COMPACT OVERHEAD AERO-Z<sup>®</sup> CONDUCTORS

REFERENCES



YEARS OF CONTRACTS : 1970-2008

## AERO-Z®, one of the world's most advanced conductors for high-voltage overhead lines

(AERO-Z® is a patented trademark).

### **MAIN REFERENCES**

- **1970** 150 kV LILLO SOLVAY, 3 phase system (3PS), 3 ranges in locked  
617 mm<sup>2</sup>-1Z - 5 km
- **1974** 380 kV DOEL-ZANDVLIET, the crossing of the Scheldt is equipped with 2 x  
3PS – 16km – 1.642mm<sup>2</sup> locked and a ground cable of 600mm<sup>2</sup> locked
- **1977** 150 kV aerial of BAISY-THY, 1 x 3PS – 24.1 km in 362mm<sup>2</sup> -1Z locked
- **1982** 380 kV experimental line of VILLEROUX-HOUFFALIZE, 1 x 3PS - 5 ranges  
equipped with 5 km of 620mm<sup>2</sup>-1Z locked twin-wire conductor
- **1989** 28 km - 70 kV Aerial of BATTICE – compact 245mm<sup>2</sup> -2Z +  
- 70 kV Aerial of KERSBEEK, 2 x 3PS - replacing existent conductors  
(210mm<sup>2</sup> Al-Ac) with compact 245mm<sup>2</sup>-2Z conductors
- **1990** 70 kV MONTIGNIES-GILLY, 2 x 3PS - replacing existent conductors (210  
mm<sup>2</sup> Al-Ac) with compact 245mm<sup>2</sup>-2Z conductors.  
150 kV BEERST-KOKSYDE, 2 x 3PS - 51 km - 445mm<sup>2</sup> AMS-2Z  
50 kV EISERINGEN - 10 km - 445mm<sup>2</sup> AMS-2Z
- **1991** 150 kV - STADEN BEERST - 3 x 17,5 km - 445mm<sup>2</sup> AMS-2Z  
380 kV - LANGERBRUGGE-HAMME - 10 km - 621mm<sup>2</sup> AMS-1Z  
CZECHOSLOVAKIA - AERO-Z® conductor 446mm<sup>2</sup> – 1km for  
qualification tests.  
ISLAND - AERO-Z® conductor 536mm<sup>2</sup> – 2 km for comparison tests  
under snow.
- **1995-1996** ECUADOR – 69kV - 83.5 km of AERO-Z® 183mm<sup>2</sup> AMS-1Z for INECEL  
SLOVAKIA – 10.5 km of AERO-Z® 536mm<sup>2</sup> AMS-2Z for ELEKTROVOD
- **1992-1997** We supplied 2000T (about 1,200 km) of AERO-Z® conductors to Belgian  
Electricity Companies.
- **1994-1997** We have carried out a plan with Electricité De France-PECHINEY and  
Hydro-Québec on a 661 mm<sup>2</sup> AERO-Z® HC (High Conductivity)  
conductor. Our solution has been chosen by EDF among others (namely  
Trap-Wire) conductors.
- **1998-1999** Belgian Utility ELECTRABEL laid about 400 km of AERO-Z® conductors  
705mm<sup>2</sup> AMS-2Z.

- **2000**
  - PERU – 537 km of AERO-Z® 455mm<sup>2</sup> 220kV -2Z for ETECEN.
  - ELECTRABEL – 70kV Angleur - 12km of AERO-Z® 455mm<sup>2</sup>-2Z
- **2001**
  - PERU – 700 km of AERO-Z® 455mm<sup>2</sup> AMS-2Z for ETECEN.
  - ELECTRABEL via GTI – 150 kV Auvélais-Tergnée-Seilles - 12 km of AERO-Z® 455mm<sup>2</sup>-2Z
  - ELECTRABEL via Fabricom – 150 kV Hoenderveld-Wijgmaal-Tienen & Staden-West Rozebeek - 112 km of AERO-Z® 504mm<sup>2</sup>-2Z
- **2002**
  - FRANCE – 39 km AERO-Z® 455mm<sup>2</sup>-2Z for EDF (ISLAND OF LA REUNION)
  - FRANCE – 76 km AERO-Z® 666mm<sup>2</sup>-2Z (EDF/RTE) – La Boisse-Cusset
  - FRANCE – 51 km AERO-Z® 346mm<sup>2</sup>-2Z for EDF (ISLAND OF LA REUNION)
  - ELIA – 150 kV Bascoup-Monceau – 88 km of AERO-Z® 242mm<sup>2</sup>-2Z
  - ELIA – 70 kV Tergnée-Auvélais – 61 km of AERO-Z® 346mm<sup>2</sup>-2Z
  - ELIA (Via Engema) – 150 kV Beerst-Koksijde – 50 km of AERO-Z® 504mm<sup>2</sup>-2Z
  - ELIA (Via Fabricom) – 150 kV Kallo-Kettenisse– 11 km of AERO-Z® 928mm<sup>2</sup>-3Z
  - ELIA – 150 kV Antoing-Thieulain – 56 km of AERO-Z® 301mm<sup>2</sup>-2Z
- **2003**
  - ELIA – 150kV Bois l’Image-Tihange 30 km AERO-Z® 707mm<sup>2</sup>-2Z
  - ELIA – 150kV Vieux Genappe-Baisy-Thy 11 km AERO-Z® 346mm<sup>2</sup>-2Z + 54 km AERO-Z® 455mm<sup>2</sup>-2Z
  - FRANCE - RTE (former EDF)– 380 kV Boutre-Coudon - 315 km of AERO-Z® 666mm<sup>2</sup>-2Z.
- **2004**
  - ELIA – 150kV Bascoup-Monceau 88 km AERO-Z® 242mm<sup>2</sup>-2Z + 17km OPGW-Z 253/31mm<sup>2</sup>-1
  - ELIA – 150kV Malfalaise-Montignies 68 km AERO-Z® 242mm<sup>2</sup>-2Z + 14km OPGW-Z 253/31mm<sup>2</sup>-1
  - ELIA- 380 kV Avelgem – Avelin ( Belgian part ) –145 km of Aero-Z 707mm<sup>2</sup>-2Z
  - ELIA-70 kV Auvélais-Sombrefe –36 km of AERO-Z 242mm<sup>2</sup>-1Z
  - FRANCE – RTE (former EDF)- 380kV Avelgem-Avelin – 139.8 km of AERO-Z® 707mm<sup>2</sup>-2Z
  - CHINA – Chengdu – 220 kV – 20km of AACSR-Z® 934mm<sup>2</sup>-3Z
  - PERU 45km of AERO-Z® 455mm<sup>2</sup>-2Z for PROANSA
- **2005**
  - FRANCE – RTE (former EDF)- 400kV Cantegrit - Saucats – 478.2 km of AERO-Z® 666mm<sup>2</sup>-2Z

- **2006**
  - ELIA –150kV Nieuwe Vaart – 25 km AERO-Z® 346mm<sup>2</sup>-2Z + 26km AERO-Z® 504mm<sup>2</sup>-2Z.
  - Red de Energia Del Peru – 610 km AERO-Z® 301mm<sup>2</sup>-2Z
- **2007**
  - Red de Energia Del Peru – 885 km AERO-Z® 455mm<sup>2</sup>-2Z (A3F) (Installation May 2007 – January 2008)
  - Krymenergo (Ukrain) – 34km AERO-Z® 242-2Z (A3F)
  - Nigelec (Niger) – 820 km AERO-Z® 242-2Z (A3F)
  - Sakhalin Islands (Russia) – 36 km AERO-Z 261-2Z (A3F)
  - Sochi Region Electrical (Russia) – 77 km AERO-Z® 242-2Z (A2F)
  - FRANCE – RTE (former EDF)- 400kV Bonifaccio – Porto Vecchio (Corsica) 51 km of AERO-Z® 346mm<sup>2</sup>-2Z
- **2008**
  - FRANCE – RTE (former EDF)- 400kV Avelin –Weppes-Varendes – 852,5 km of AERO-Z® 707mm<sup>2</sup>-2Z (Installation 466,5 km Q1-2/2008 & 386 km Q2/2009)
  - FRANCE – RTE (former EDF)- 400kV Montahut - Saint Vincent – 112,5 km of AERO-Z® 666 mm<sup>2</sup>-2Z (Installation Q2/2008)
  - Amur River Volochaevka 110kV (Russia) – 27 km Aero-Z® AACSR-Z 434/214-2Z (A3F) (Installation Q2/2008)
- **1999-2010** Belgian Transmission Network Manager ELIA has planned to lay about 1,400 km of AERO-Z® conductors (mainly AAAC 346mm<sup>2</sup>, 504mm<sup>2</sup> and 707mm<sup>2</sup>-2Z, a bit of 928mm<sup>2</sup>-3Z).
- **2002-2010** The French Transmission Network Manager RTE (former EDF) has planned the rehabilitation of its 220 kV ACSR network with conductors adopted from our AERO-Z® design and called "AZALEE" or "CEE" conductors. Estimation of rehabilitation rhythm could reach 1,350 km and up to 2,250 km of conductor/year. Chosen and qualified cross-sections are 177-1Z, 261-2Z, 346-2Z, 455-2Z, 666-2Z and 707mm<sup>2</sup>-2Z.

Note : since 1993, the demand of **AERO-Z®** conductors is still growing.

The Belgian Transport Network Manager "ELIA" has suggested that this type of conductor should be installed systematically.

NEXANS continues to improve this AERO-Z© conductor, now under study to withstand also to the high temperatures (150-200°C), to make the transport networks safer even in case of high overload, in addition to all the known advantages of this compact conductor.

